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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,604	10/16/2003	Hao-Yen Lin	LINH3020/EM	5152
23364	7590	07/14/2006	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			PILKINGTON, JAMES	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/685,604

Applicant(s)

LIN, HAO-YEN

Examiner

James Pilkington

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/16/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show 20 cogs as described in the specification on page 4 line 17. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. As currently written it is unclear if the applicant is attempting to claim a differential or a forward and reverse mechanism (two-directional mechanism. It is also unclear as to how the device actually works, do cogs move in and out of alignment or is the applicant attempting to show that part of the cogs are smooth and another part has teeth to engage different cogs/cog teeth?

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is unclear what the applicant is attempting to disclose (see paragraph 2 above). If the applicant is attempting to disclose an invention where gears Z19 and Z21 rotate in different directions relative to one another upon a single directional input from the flywheel the examiner fails to see how this is possible. Looking at the figures gears N19 would rotate in the same direction as N20 and

therefore transfer the same rotational direction to both Z19 and Z21 as it does to Z20 and it is not possible to cause different rotation directions since Z19 and Z21 share common drive elements N19 which are directly coupled to N20. Also, what is causing the initial rotation, what is driving the gears, what is the input gear member?

Re clm 2, what is meant by the phrase "swing motion" in line 14? The examiner only sees the device as being able to rotate.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are replete with such errors, a few have been listed below.

It is unclear as to what the applicant means "the standard" (clm 1 Line 4-6) and "normal" (clm 1 Line 18; clm 7, Line 3). What is the standard and normal? What does the applicant mean "to create itself rotation" (clm 1 Line 14)? Claim 1 also recites the limitation "the flywheel" in line 20. There is insufficient antecedent basis for this limitation in the claim.

Re clm 2, it is unclear to the examiner what is meant by the phrases "at least upon two teams" in line 2, "gearwheels have engage" in line 2, "with around on" in line 3 and "to be start movement mode" in line 5 of the clm. What is the applicant attempting to claim?

Also, it is unclear as to what is being positively recited as a claim limitation, in particular the equations in clms 3 and 7. With regards to the equations the examiner would like to note that upon initial inspection they appear to be modifications of typical gear ratio equations (see cited NPL document), but that cannot be positively determined without the necessary corrections to the specification. The terms "0 degree" and "180 degree" in claim 3 are indefinite since no frame of reference has been previously established. From what location on the assembly is the 0 and 180 degree positions being measured from.

Re clm 5, it is unclear to the examiner what is meant by the phrase "therefore having a number" in line 3 of the clm. Is the applicant attempting to claim that the one wheel has more cogs than the other?

Re clm 6, the phrase "may be" renders the claim indefinite as it is unclear if the device has to have one input and one output satellite gear.

Re clm 8, it is unclear what is meant by the phrase "or more for construction" in line 3 of the clm. For the construction of what? The device? Or is the applicant trying to claim that the device can have multiple teams of gears?

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1- 8, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Forton, USP 2,252,967.

Re clm 1, Forton discloses a two-directional transportation apparatus (capable of moving in forward or reverse) with the possibility to create movement through a differential speed (C1/L1-2) comprising:

- A central orbit-gear wheel (6)
- An output-gear wheel (5)
- Cogs (all gears have cogs)
- Another output-gear wheel (6 becomes an output gear when functioning in the reverse direction)
- A team of satellite gears (7) all having cogs with the same pitch diameter but different cogs that drive the output-gears (5 and 6) being installed 180 degrees apart (one gear is 180 degrees from the one across from it)
- A flywheel (5 can be also considered a fly wheel when gear 5 is the input to the system)

Re clm 2, at least two teams of satellite wheels (7).

Re clm 3, the two teams of satellite gear wheels (7) are installed apart in the 0 degree and 180 degree position.

Re clm 4, one output gear wheel creates a movement against the rotation direction of the driving wheel and it is known that reducing the number of cogs will change the output speed.

Re clm 5, one output gear wheel (6) creates a movement with the rotation direction of the encircling wheel (5).

Re clm 6, each team of satellite gear wheel (7) may be composed of one input satellite and one output satellite.

Re clm 7, the input satellite gearwheel (7) engages with the orbit gear wheel (5 or 6).

Re clm 8, the apparatus is composed of at least two team of satellite-gearwheels or more (7).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Pilkington whose telephone number is (571) 272-5052. The examiner can normally be reached on Monday-Friday 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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7/10/06



RICHARD RIDLEY
SUPERVISORY PATENT EXAMINER